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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,930	10/16/2000	Katsunori Tamura	P10718300003	6945

7590 01/06/2004

Arent Fox Kintner Plotkin & Kahn
Suite 600
1050 Connecticut Avenue
Washington, DC 20036-5339

EXAMINER

MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 01/06/2004

TO

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/647,930

Applicant(s)

TAMURA ET AL.

Examiner

Virginia Manoharan

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed "a third enriching section, which is formed at the second chamber..." recited in claim 1, section (f) and in claim 9, section (f) is nowhere in the specification. However, if support can be pointed -out at least, the specification is objected to as failing to provide proper antecedent basis for the above subject matter as it is not positively recited in the specification. Compare e.g., with page 5, lines 19-13 reciting "...third distillation section...an enriching section located at an upper portion thereof and an exhaust section located at a lower portion thereof..." The latter recitation would presupposed that the location is at the third chamber, and not at the second chamber as claimed.. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Claims 9, 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claims 14-18 and claim 9 are rejected for the same reasons as set forth at sections e and f at pages 3 and 4 respectively of the previous Office action.

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Since applicants did not address this rejection, it is assumed they are acquiescing therein.

b. It is not seen how the mere channel—type distributor having a plurality of holes can make the “amount of liquid differ among each other.”

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 12 and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kaibel et al (5, 914,012) or Lockett et al (5,339,648).

Either of the above references is deemed to anticipates or renders obvious the “..distillation apparatus comprising:

- a. a column body;
- b. a partition for dividing the interior of said column body into a first chamber and a second chamber, which are adjacent to each other;
- c. a feed nozzle for feeding into said column body a material liquid containing at least first to third components;

- d. a first distillation section comprising a first enriching section, which is formed at the first chamber, located at an upper portion thereof and a first exhaust section, which is formed at the first chamber, located at a lower portion thereof;
- e. a second distillation section disposed such that at least a portion thereof is adjacent to the top of said column body, and comprising a second enriching section located at an upper portion thereof and a second exhaust section, which is formed at the second chamber located at a lower portion thereof.
- f. a third distillation section disposed such that at least a portion thereof is adjacent to the bottom of said column body and comprising a third enriching section which is formed at the second chamber, located at an upper portion thereof of a third exhaust section located at a lower portion thereof.
- g. first discharger connected to the second enriching section for discharging the first component;
- h. second discharger connected to the area between the second exhaust section and the third enriching section for discharging the second component; and
- i. third discharger connected to the third exhaust section for discharging the third component, wherein
- j. said partition is biased such that the cross-sectional area of the first chamber differs from that of the second chamber...", as claimed in claim 1. See e.g., Figures 1 &, 4-7 of Lockett et al and Fig. 2 of Kaibel et al.

Claims 4-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

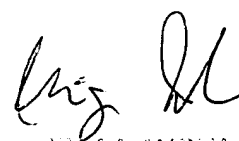
Claims 14-19 are would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is (703) 308-3844. The examiner can normally be reached on Tuesday--Friday from 7:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (703) 308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9311 for regular communications and (703) 308-0651 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

V. Manoharan/dh
December 4, 2003


V. MANOHARAN
SENIOR EXAMINER
ART UNIT 1764
12/15/03